

AMENDMENTS TO THE CLAIMS:

This listing of the claims will replace all prior versions, and listings, of the claims in this application:

Listing of Claims:

1. (Currently Amended) A device architecture comprising:  
a processor arranged to run an operating system (OS) comprising an OS scheduler;  
hardware comprising a Dynamic Configurable Hardware Logic (DCHL) layer comprised of a plurality of Logic Elements (LEs); and  
interposed between said OS and said DCHL layer, a TiEred Multi-media Acceleration Scheduler (TEMAS) that cooperates with the OS scheduler for scheduling the LEs of the DCHL to execute applications in accordance with inherited application priorities, where the TEMAS operates in response to configuration requests to configure and reconfigure at least some of the plurality of LEs using the inherited application priorities such that at one time a particular LE is scheduled for operation with a first algorithm logic, and at another time the same particular LE is scheduled for operation with a second, different algorithm logic.
2. (Original) A device architecture as in claim 1, where the TEMAS is comprised of a Tier-1 scheduler that communicates with the OS scheduler and at least one Tier-2 scheduler interposed between the Tier-1 scheduler and one DCHL configurable device.
3. Cancelled
4. (Original) A device architecture as in claim 1, where said plurality of LEs are disposed within at least one context plane.
5. (Original) A device architecture as in claim 2, comprising an application layer that comprises at least one application, a service layer that comprises said Tier-1 scheduler and said OS scheduler, a node layer that comprises said at least one Tier-2 scheduler that is coupled to a

scheduling algorithm of said Tier-1 scheduler, and a hardware layer that comprises said at least one DCHL configurable device.

6. (Original) A device architecture as in claim 1, where said device comprises a device having wireless communications capability.

7. (Currently Amended) A method comprising:

providing an operating system (OS) comprising an OS scheduler and a Dynamic Configurable Hardware Logic (DCHL) layer comprised of a plurality of Logic Elements (LEs);

interposing between said OS and said DCHL layer a TiEred Multi-media Acceleration Scheduler (TEMAS); and

operating the TEMAS in cooperation with the OS scheduler for scheduling the LEs of the DCHL to execute applications in accordance with inherited application priorities, where operating the TEMAS comprises responding to configuration requests to configure and reconfigure at least some of the plurality of LEs using the inherited application priorities such that at one time a particular LE is scheduled for operation with a first algorithm logic, and at another time the same particular LE is scheduled for operation with a second, different algorithm logic.

8. (Original) A method as in claim 7, where the TEMAS is comprised of a Tier-1 scheduler for communicating with the OS scheduler and at least one Tier-2 scheduler interposed between the Tier-1 scheduler and one DCHL configurable device.

9. Cancelled

10. (Original) A method as in claim 7, where said plurality of LEs are disposed within at least one context plane.

11. (Original) A method as in claim 8, comprising an application layer that comprises at least one application, a service layer that comprises said Tier-1 scheduler and said OS scheduler, a node

layer that comprises said at least one Tier-2 scheduler that is coupled to a scheduling algorithm of said Tier-1 scheduler, and a hardware layer that comprises said at least one DCHL configurable device.

12. (Currently Amended) A method as in claim 7, ~~where said device comprises~~ executed in a device having wireless communications capability.

13. (Currently Amended) An apparatus, comprising:

an applications layer comprising a plurality of applications;

a processor arranged to run a service layer comprising an operating system (OS) having an OS scheduler;

hardware comprising a hardware layer comprising Dynamic Configurable Hardware Logic (DCHL) comprised of a plurality of Logic Elements (LEs); and

interposed between said OS and said DCHL in said service layer and in a node layer, a TiEred Multi-media Acceleration Scheduler (TEMAS) that cooperates with the OS scheduler for scheduling the LEs of the DCHL to execute said applications in accordance with inherited application priorities, where operating the TEMAS comprises responding to configuration requests to configure and reconfigure at least some of the plurality of LEs using the inherited application priorities such that at one time a particular LE is scheduled for operation with a first algorithm logic, and at another time the same particular LE is scheduled for operation with a second, different algorithm logic.

14. (Previously Presented) An apparatus as in claim 13, where said TEMAS is comprised of a Tier-1 scheduler that communicates with the OS scheduler and at least one Tier-2 scheduler interposed between the Tier-1 scheduler and one DCHL configurable device.

15. Cancelled

16. (Previously Presented) An apparatus as in claim 13, where said plurality of LEs are disposed within at least one context plane.

17. (Previously Presented) An apparatus as in claim 13, where said apparatus comprises a cellular telephone.

18. (New) An apparatus as in claim 13, where said apparatus comprises a wireless communications device, and where said applications comprise multimedia applications.

19. (New) An apparatus, comprising:

a plurality of logic elements;

a logic element scheduler coupled to said plurality of logic elements; and

an application scheduler coupled to said logic element scheduler and to an operating system scheduler, said application scheduler configured to receive information from said operating system scheduler comprising at least a scheduling order of applications and a priority of the applications and to generate and send application scheduling events to said logic element scheduler in accordance with said received information;

where said logic element scheduler responds to receipt of scheduling events to configure and reconfigure at least some of the plurality of logical elements such that at one time a particular logic element is scheduled for operation with a first algorithm logic, and at another time the same particular logic element is scheduled for operation with a second, different algorithm logic.

20. (New) The apparatus of claim 19, where said application scheduler is further configured to receive feedback of communication overhead from said logic element scheduler for use in adjusting scheduling timing.

21. (New) The apparatus of claim 19, where said logic element scheduler is further configured use the priority information when scheduling the application logics onto the logic elements.

Serial No.: 10/740,034  
Art Unit: 2195

22. (New) The apparatus of claim 19, embodied in a device having wireless communications capability.